

Patent Claims

1. A flat cable plug connector arrangement (1) with
 - a flat cable (2) that has at least one signal conductor (5), at least one ground conductor (6), and a shield (7) surrounding the conductors and
 - with a plug connector (3) having a metal housing (4) or a housing made of metallized or other conductive material and a contact element (8) connected to the signal conductor (5),characterized in that
 - a grounding jumper (9) that is crimped onto the flat cable (2) and penetrates the shield (7) and the at least one ground conductor (6) is brought into electrical contact with the conductor-side part of the housing (4) by crimping (19) the latter onto the grounding jumper (9).
2. The flat cable plug connector arrangement according to claim 1, further characterized in that the flat cable (2) is constructed as a flat conductor having a flat signal conductor (5) that is encapsulated between two flat ground conductors (6) running at a spacing parallel to it and arranged in a flexible plastic body (12), which is surrounded by metal foils, which are in turn encapsulated together with the body (12) in an outwardly flexible plastic sheath (13).
3. The flat cable plug connector arrangement according to claim 1 or claim 2, further characterized in that the grounding jumper (9) has an essentially rectangular base plate (14), the width of which transverse to the longitudinal direction of the conductor is narrower than the width of the flat cable (2), in such a way that crimping contact blades (15), bent by 90° from the side edges with respect to the base plate (14), bite into the shield (7) and into the ground conductor (6), and tabs (16) are arranged at the four corners of the base plate

(14) that embrace the flat cable (2) up to its side lying opposite the base plate (14).

4. The flat cable plug connector arrangement according to claim 3, further characterized in that the crimping contact blades (15) are arranged at an angle to the edge of the base plate in their crosswise extension.
5. The flat cable plug connector arrangement according to one of the preceding claims, further characterized in that the housing (4) has a dielectric insert (10), in which the contact element (8), including its crimping end, is guided.
6. The flat cable plug connector arrangement according to claim 5, further characterized in that the housing (4) and the insert (10) are essentially cylindrical in shape, the front end of the insert (10), viewed in the plugging direction, having a reduced diameter so as to form a shoulder (18), which abuts against a contraction in the diameter of the metal housing (4, 9), the insert (10) being secured on the cable side by the crimping constriction of the metal housing (4, 9) over the grounding jumper (9).
7. The flat cable plug connector arrangement according to claim 3, further characterized in that the crimping of the housing (4, 9) over the grounding jumper (9) has an extension in the plugging direction that is smaller than or essentially equal to the spacing between the front and back tabs (16), so that a securing of the cable is effected.
8. The flat cable plug connector arrangement according to claim 3 or 4, further characterized in that the tabs (16) are longer than the thickness of the flat cable (2), so that their ends can be bent around the bottom side of the conductor and the crimping contact blades become pointed at their free ends, their length being slightly greater than the thickness of the flat cable.